

Work Order ID 61571

Monday, August 30, 2010 11:27:58 AM



Page 1

Item ID: D350-636-012

Accept



Setup Start



Revision ID:

Stop



Item Name: Skidtube RH

Start Date: 8/30/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 9/6/2010 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: Date: 10-8-30 Tooling: Date:
QC: Date: SPC (Y/N): Date:

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2750	Rev F								

100

0.00



DC

DOCUMENT CONTROL

Memo

0.00

Document Control

Photocopy blue file and type labels per PPP D350-636-012 CHG 005

8/10/08/23

HJ for BG 10-9-23

BG1571

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

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110



Skidtubes

Skidtubes

Skidtubes

Memo

1- Pick D2600-3 Bent

2- Deburr FWD and AFT ends, remove bending marks. Scribe batch# inside
AFT end per dwg D2750

3- Drill pilot holes for blade fitting bolt holes using DT8983. Open to 0.500",
deburr.

4- Locate DT8329 off of blade fitting bolt holes and drill pilot holes for blade
fitting

5- Drill fwd step holes using DT9616. Ensure proper positioning.

6- Drill pilot holes as per Dwg D2750 sheet 4 (D2750-2 details). Drill using drill
Jig DT8150 & DT8863A for first side only DT8863B for second side (detail B)
ONLY DRILL ONE SIDE OF FWD SADDLE HOLES USING DT8150

7- Clecko DT8863B on second side of tube and drill pilot holes for detail B.
SECOND SIDE

8- Clecko DT9642 and drill fwd saddle holes on second side, ensure proper
positioning.

9- Open up holes for Detail B to 0.375" (4 holes per side) and blade fitting
location holes to 0.500" (total of 4 holes per side) as per dwg D2750. Open up
holes for ground handling and detail C to 0.500" (8 holes per side)

10- Drill pilot holes for wearplates as per Dwg D2750 using DT8108 open to

Accept Qty: 1
Reject Qty: -
Reject Number: 8
Insp. Stamp: 10/08/31

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Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

0.297"

11-Open up holes of Detail A to 0.297" (total of 2 holes per side)

BE 10/08/31

12-Weld D2744 Cap as per Dwg D2750 and QSI 004. Fill grooves in bend left
from bending as per QSI 004

A/R Aluminum Rod batch: ☐ M114877

BE 10/09/01

13-Grind welds flush as per Dwg D2750

DP 10-9-2

120



QC

Quality Control

QC10- Inspect visual per QSI004- ground welds

0.00

Memo

0.00

1 100902

130



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

1 100902

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Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

140

Chemical Conversion Coat per QSI005 4.1

0.00

DP

10-9-7



HandFinish

Memo

0.00

Hand Finishing

150

QC3- Inspect Part Finish

0.00

BE (x1) 10-09-07



QC

Memo

0.00

Quality Control

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Run Start
Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 Skidtubes	Skidtubes	0.00							
Skidtubes	Memo 1-Open up holes of Detail L and ground handling to 0.625" (total of 8 holes per side) as per dwg D2750. 2-Open up holes of Detail K to 0.750" (total of 4 holes per side) as per dwg D2750. 3-Open float holes to .500" (4 per Side) 4-Chamfer holes of Detail K, L, ground handling and float holes per dwg D2750 (welding instructions on sheet 9) 5-Deburr and blow out all chips from inside of tube 6-Prepare tube for welding, remove alodine as required. 7-Bond web D2739 in place as per QSI 015 A/R <input type="checkbox"/> Sikaflex-291 batch: <u>M115114</u> <input type="checkbox"/> <input type="checkbox"/> exp. date: <u>11-1-30</u> 8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D2750 & QSI004 (welding instructions on sheet 9) A/R <input type="checkbox"/> Aluminum Rod batch: <u>M114877</u> 9- At section AP-AP drill out x-bolt spacer to 0.404" 10-Grind welds flush as per Dwg D2750 11-Spot face ground handling holes section (total of 4 places per side) as per	0.00							

10-9-7

DP 10-9-9

BE 10-9-13
BE 10-9-13

DP 10-9-14

BE 10-9-14

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Dart Aerospace Ltd

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Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190 HandFinish Hand Finishing	Pressure Wash per QSI005 4.3 Memo Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.	0.00 0.00		2: M... 10/09/15		1	0		
200 Powdercoat Powder Coating	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum M114841 Memo START TIME: 12:45pm OVEN TEMPERATURE: 320° FINISH TIME: 1:15pm	0.00 0.00		2: M... 10/09/15		1	0		
210 QC Quality Control	QC3- Inspect Part Finish Memo Inspect for foreign object per QSI 024	0.00 0.00		BL 10-9-22		1	0		

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Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

220



HandFinish

Hand Finishing

HandFinishing

Memo

✓ Install inserts as per dwg D2750

0.00

0.00

⇒ M 10/09/22

1

0

230



HandFinish

Hand Finishing

HandFinishing

Memo

✓ 1-Inspect for Foreign Objects

2-Spray inside of tube with "LPS-3"

batch: N/A

3-Install blade fitting D3488-042, wearshoes and ground handling hardware as per dwg D2750

✓ SIKA FLEX 241

BATCH: M115114EXP DATE: 11/01

✓ 4-assemble o-ring to plug as per dwg D3492 and apply o-ring lube

A/R 55-o-ring lube batch: M114189

5-Coat all exposed fasteners with "LPS Procyon"

batch: M104896

0.00

0.00

⇒ M 10/09/22

10/09/22

1

0

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Customer:

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

240

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

8/30/09/22



250

Pick Kit

0.00



Packaging

Memo

0.00

Packaging

8/30/09/23 (1)

260

QC4- 100% Inspect kits for completeness

0.00



QC

Memo

0.00

Quality Control

8/30/09/23



W/O:		WORK ORDER CHANGES					
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Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

270



Packaging

Packaging

hec B

0.00

Rev H

Memo

0.00

Package as per PPP D350-636-012

10/09/27

280



QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

10/09/27

mf.
10-9-27

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Picklist Print

Monday, August 30, 2010 11:28:02 AM

Page 1

Work Order ID: 61571

Parent Item: D350-636-012

Parent Item Name: Skidtube RH



Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev: I 02.09.25 Rearranged procedure steps KJ
 IPP Rev: J 06-03-29 As per Rev D EC
 IPP Rev: K 06-07.13 As per dsi9343 EC
 IPP Rev: L 07-07-28 Added SS Wearplates (Rev E) JLM Verified By: EC
 IPP Rev: M 08-04-22 update steps 4,13 DD verified by: EC
 IPP Rev: N 08-09-23 revF as per dwg DD verified by: ec IPP Rev: O
 10.06.22 revise seq 110 DD verf: EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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ALS4-1032-225		Purchased	No			220	Each	5,418.000	38	38			
Insert													

Location Loc Qty Loc Code

PK011 5418
 110768 5418

AN3C5A		Purchased	No			230	Each	1,072.000	34	34			
Bolt													

Location Loc Qty Loc Code

ST350 1062
 114330 11
 115015 251
 115108 300
 115316 300
 115371 100
 115422 100
 ST351 10
 113121 10

10/09/22

x38

10/09/22

x34

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Required Date: 9/6/2010



Start Qty: 1.00

Required Qty: 1.00

AN3C6A	Purchased	No	230	Each	353.0000	4	4
							<u>yl 10/09/22</u>
BOLT							



<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

ST351	353	
<u>111982</u>	353	

AN6C44A	Purchased	No	230	Each	129.0000	4	4
 *							<u>x4 yl 10/09/22</u>
BOLT							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

FG	2	
103964	2	
ST344	127	
111649	2	
114653	1	
114941	75	
<u>115030</u>	49	

AN8C35A	Purchased	No	230	Each	41.0000	1	1
							<u>yl 10/09/22</u>
BOLT							

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

FP	1	
110847	1	
ST346	40	
<u>114442</u>	15	
115188	25	

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Shop Packet Print

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Start Qty: 1.00

Required Qty: 1.00

AN960C10L

NAS1149C0332
R

Purchased

No

230

Each

155.0000

38

38



washer

1115698



x38 JH 10/09/22

Location

Loc Qty

Loc Code

ST245

155

107534

29

109545

54

111548

72

AN960C816L

Purchased

No

230

Each

0.0000

1

1



WASHER

NAS1149C08332R / IM 114915

D2745

Manufactured

No

230

Each

173.0000

8

8



Bushing



JH 10/09/22

Location

Loc Qty

Loc Code

ST023

173

52311

5

59112

68

61203

100

D3488-042

Manufactured

No

230

Each

13.0000

1

1



Blade Fitting Assembly, RH



JH 10/09/22

Location

Loc Qty

Loc Code

FP008

13

53918

1

59643

12

X1

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Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 1.00

Required Qty: 1.00

D3492-041 Manufactured No

230

Each

57.0000

8

8



Plug Assembly



JK 10/09/22

Location

Loc Qty

Loc Code

FP013

57

59114

1

61311

56

x8

D3492-043 Manufactured No

230

Each

23.0000

8

8



Plug Assembly



JK 10/09/22

Location

Loc Qty

Loc Code

FP

2

54682

2

1361503

x8

FP013

21

59117

1

59190

4

61207

16

D3535-25 Manufactured No

230

Each

10.0000

1

1



Wearshoe



JK 10/09/22

Location

Loc Qty

Loc Code

FP18

10

59623

10

1361706

x1

D3536-25 Manufactured No

230

Each

11.0000

1

1



Gasket



JK 10/09/22

Location

Loc Qty

Loc Code

FP12

11

59625

11

1361707

x1

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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Picklist Print

Monday, August 30, 2010 11:28:02 AM

Page 5

Work Order ID: 61571

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 1.00

Required Qty: 1.00

D3537-1

Manufactured No

230

Each

8.0000

3

3



Wearpad



10/09/22

Location

Loc Qty

Loc Code

FP

1

B60640

11

55465

1

FP017

48

FP17

7

57713

3

60491

4

D3631-1

Manufactured No

230

Each

475.0000

8

8



Washer



10/09/22

Location

Loc Qty

Loc Code

ST072

201

60755

201

x8

ST076

274

52693

206

54388

68

D3672-1

Manufactured No

230

Each

921.0000

4

4



Phenolic Washer



10/09/22

Location

Loc Qty

Loc Code

ST077

921

42329

150

52505

771

y4

Monday, August 30, 2010 11:28:02 AM

Shop Packet Print

Page 5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Monday, August 30, 2010 11:28:02 AM

Page 6

Work Order ID: 61571

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 1.00

Required Qty: 1.00

D3791-1



Wearplate

*

Manufactured No

230 Each

9.0000

1

1



HL 10/09/22

Location

Loc Qty

Loc Code

FP17

9

B61702

xl

58573

8

59626

1

D3793-1



Wearshoe

Manufactured No

230 Each

15.0000

1

1



HL 10/09/22

Location

Loc Qty

Loc Code

FP18

15

59151

1

59630

2

61244

12

D3793-3



Wearshoe

Manufactured No

230 Each

14.0000

1

1



HL 10/09/22

Location

Loc Qty

Loc Code

FP18

13

59631

1

61258

12

FP19

1

57947

1

D3794-1



Gasket

Manufactured No

230 Each

7.0000

1

1



HL 10/09/22

Location

Loc Qty

Loc Code

FP010

7

B61704

xl

57942

7

Monday, August 30, 2010 11:28:02 AM

Shop Packet Print

Page 6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Monday, August 30, 2010 11:28:02 AM

Page 7

Work Order ID: 61571

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 1.00

Required Qty: 1.00

D3794-3

Manufactured No

230 Each

12.0000

1

1



Gasket



10/09/22

Location

Loc Qty

Loc Code

FP10

1

60826

1

FP18

11

56066

10

59153

1

xl

MS21043-6

Purchased No

230 Each

678.0000

4

4



NUT



10/09/22

Location

Loc Qty

Loc Code

ST301

678

112314

678

xl

MS21083C8

Purchased No

230 Each

30.0000

1

1



NUT



10/09/22

Location

Loc Qty

Loc Code

ST303

30

113845

7

114934

23

xl

NAS1611-010

Purchased No

230 Each

259.0000

8

8



O-RING



10/09/22 PTO=)

Location

Loc Qty

Loc Code

FP

259

110715

100

110915

159

Monday, August 30, 2010 11:28:02 AM

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Page 7

W/O: 61571		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
10/09/22	230	Replace NAS 1611-010 "O" Rings for D2594-3 / M61762	94	10/09/22	X8		26/09/22

Part No: D350-636-012 PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Monday, August 30, 2010 11:28:02 AM

Page 8

Work Order ID: 61571

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 1.00

Required Qty: 1.00

NAS1611-013

Purchased

No

230

Each

103.0000

8

8



O-RING



10/09/22

Location

Loc Qty

Loc Code

FP

103

M115589

x8

114451

3

115460

100

AN8C21A

Purchased

No

250

Each

43.0000

2

2



BOLT



Location

Loc Qty

Loc Code

ST345

43

113558

3

114653

40

AN960C816L

Purchased

No

250

Each

0.0000

1

2



WASHER



M114653

D2741

Manufactured

No

250

Each

14.0000

1

1



Blade, 350 Skidtube



Location

Loc Qty

Loc Code

ST466

14

57949

14

D3493-1

Manufactured

No

250

Each

34.0000

2

2



Washer



57949

Location

Loc Qty

Loc Code

ST065

34

59127

4

60873

30

60873

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Page 8

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Monday, August 30, 2010 11:28:02 AM

Page 9

Work Order ID: 61571

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 1.00

Required Qty: 1.00

D3532-1

Manufactured No

250 Each

19.0000 2



Spacer



61673

Location

Loc Qty

Loc Code

ST068

19

60510

19

D3672-13

Purchased No

250 Each

828.0000 2



Phenolic Washer



2

CU

Location

Loc Qty

Loc Code

ST077

828

54363

828

MS21083C8

Purchased No

250 Each

30.0000 1



NUT



57368

2

m110094

CU

Location

Loc Qty

Loc Code

ST303

30

113845

7

114934

23

D2600-3-BENT

Manufactured No

110 Each

9.0000 1



Extrusion Bent



1

Location

Loc Qty

Loc Code

LG

9

59410

9

D2744

Manufactured No

110 Each

27.0000 1



Cap



1

DP 10-8-31

Location

Loc Qty

Loc Code

LG

27

59198

27

BE 10/09/01

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Page 9

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Monday, August 30, 2010 11:28:02 AM

Page 10

Work Order ID: 61571

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 1.00

Required Qty: 1.00

D2739

Manufactured No

160 Each

2.0000 1 1



350 I Beam

Location

Loc Qty

Loc Code

LG *BC01637* 2
61256 2

DP 10-9-9

D2743

Manufactured No

160 Each

211.0000 8 8



Crossbolt Spacer

Location

Loc Qty

Loc Code

LG 211
50281 10
57953 2
59111 199

BE 10-9-13

D3490-3

Manufactured No

160 Each

47.0000 4 4



Cross Bolt Spacer

Location

Loc Qty

Loc Code

LG 47
60294 10
61218 37

BE 10-9-13

D3490-1

Manufactured No

160 Each

85.0000 4 4



Cross Bolt Spacer

Location

Loc Qty

Loc Code

LG 85
59424 3
61217 82

BE 10-9-13

Monday, August 30, 2010 11:28:02 AM

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Page 10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

8 7 6 5 4 3 2 1

QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
X				D2750-041	350 SKIDTUBE ASSEMBLY, LH
	X			D2750-042	350 SKIDTUBE ASSEMBLY, RH
		X		D2750-043	350 SKIDTUBE ASSEMBLY, LH
			X	D2750-044	350 SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1				D2750-1	SKIDTUBE WELDMENT, LH
	1			D2750-2	SKIDTUBE WELDMENT, RH
		1		D2750-3	SKIDTUBE WELDMENT, LH
			1	D2750-4	SKIDTUBE WELDMENT, RH
1		1		D3488-041	BLADE FITTING, LH
	1			D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
1	1	1	1	D3535-25	WEARSHOE
1	1	1	1	D3536-25	GASKET
3	3	3	3	D3537-1	WEARPAD
8	8	8	8	D3631-1	WASHER
1	1	1	1	D3791-1	WEARPLATE
1	1	1	1	D3793-1	WEARSHOE
1	1	1	1	D3793-3	WEARSHOE
1	1	1	1	D3794-1	GASKET
1	1	1	1	D3794-3	GASKET
38	38	38	38	ALS4-1032-225	INSERT (OR ALS7-1032-225, AKS4-1032-225, AELS-1032-225)
34	34	34	34	AN3C5A	BOLT
4	4	4	4	AN3C6A	BOLT
4	4	4	4	AN6C44A	BOLT
1	1	1	1	AN8C35A	BOLT
38	38	38	38	AN960C10L	WASHER
1	1	1	1	AN960C816L	WASHER
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER

SHOP COPY
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SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. *41511*
B10-8-30

RELEASED
08-07-16

GENERAL NOTES:

- MATERIAL: MAKE D2750-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
- FINISH:
ACID ETCH, ALONDE ASSEMBLY PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
- TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- UNITS: INCHES UNLESS OTHERWISE NOTED
- BREAK SHARP EDGES: N/A
- IDENTIFICATION: N/A
- WEIGHT: D2750-041/-042/-043/-044 = 26.5 LBS
- WELD PER DART QSI 004
- INSTALL ALS4-1032-225 INSERTS AFTER FINISH AS INDICATED. DRILL 'F' SIZE HOLES ($\phi 0.297$) FOR WEARSHOE INSERTS
- FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
MINIMUM YIELD TENSILE STRENGTH = 35 KSI
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
- SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS.
COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF
POWDER COATING WITH MEK DEGREASER.
- SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL
- SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

F	INCORPORATE DSI 9413; QTY (3) D3537-1 WAS QTY (5) (ZN C8-1); D3791-1/-3 REPLACES D3535-13/-35 (ZN C8-1); D3794-1/-3 REPLACES D3536-13/-35 (ZN B8-1); ADD D3791-1 (ZN C8-1); WEARSHOE HOLES UNDER FWD/AFT SADDLE REMOVED (8 PL). WEARSHOE HARDWARE QTY UPDATED (ZN B8-1); D3488-041/-042 HARDWARE UPDATED (ZN C1-8, 9, 10, 11); ADD NOTE 12 AND 13 (ZN A6-1); REASON: REF. NCR 08-043	PH	08.07.16
E	CHANGE TO STAINLESS STEEL WEARPLATES; ADD RUBBER GASKETS, CHANGE INSERTS; ADD D3631-1; REMOVE QTY (38) NAS1515H3L; REMOVE QTY (10) NAS1515H3L; REMOVE D2741; QTY (2) AN960C816; REMOVE QTY (2) MS21083C8	CB	07.05.17
D	ADD HOLES AND SPACERS FOR APICAL FLOATS; INCORPORATE DEO 9133/9157	PH	06.01.05
C	ADD D2750-3/D2750-4; INCORPORATE D2738 AND D2740	CP	98.11.18
B	CHANGE MS24694-S293 TO AN8-16A	CP	98.09.01
A	NEW ISSUE	DS	98.04.16
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN	<i>PH</i>		
CHECKED	<i>PH</i>		
MFG. APPR.	<i>PH</i>		
APPROVED	<i>PH</i>		
DE APPR.	<i>PH</i>		
DATE	08.07.16		
DART AEROSPACE USA, INC. PORT HADLOCK, WA			
DRAWING NO. D2750		REV. F SHEET 1 OF 11	
TITLE 350 SKIDTUBE ASSEMBLY		SCALE NTS	
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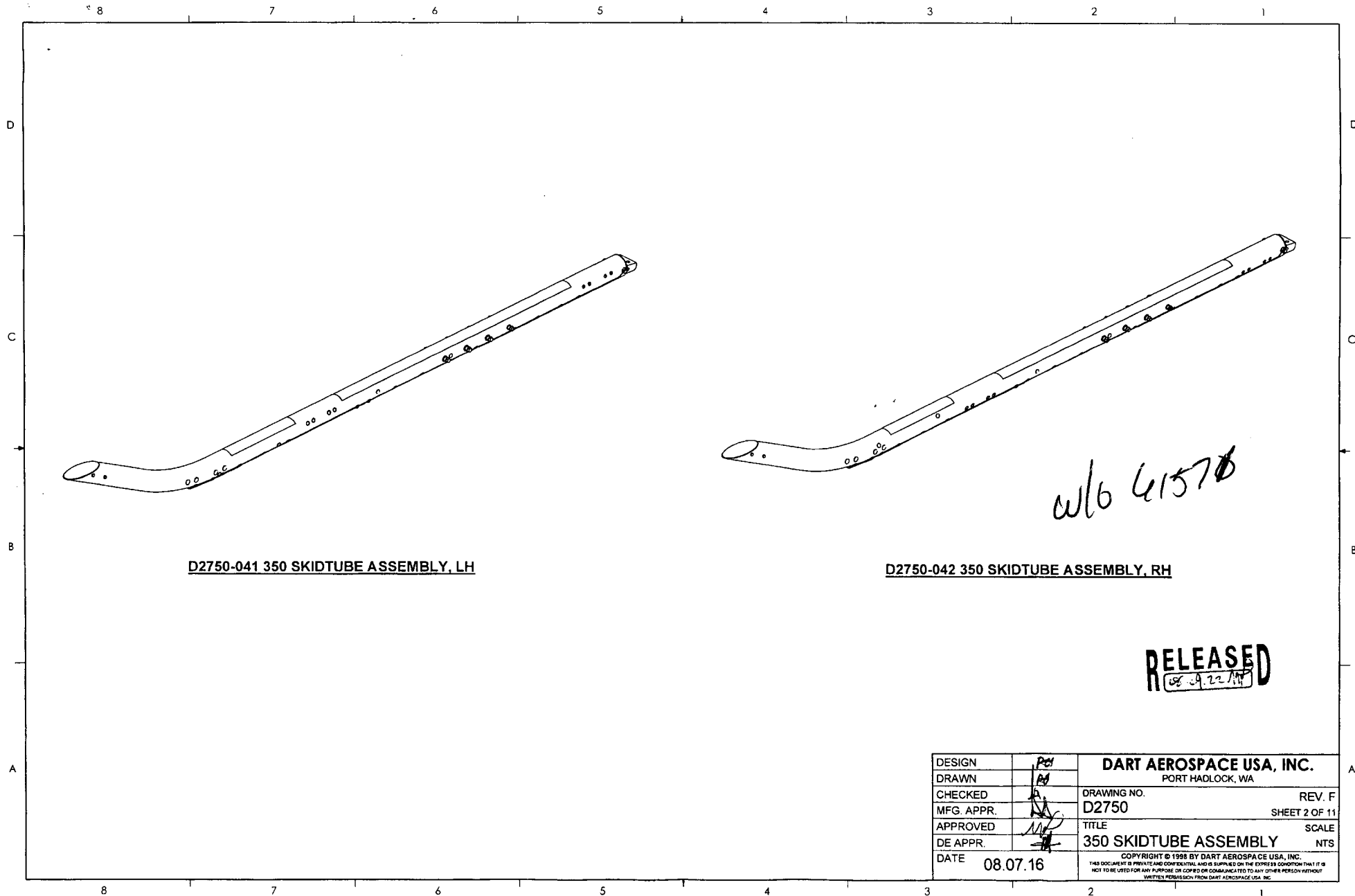
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



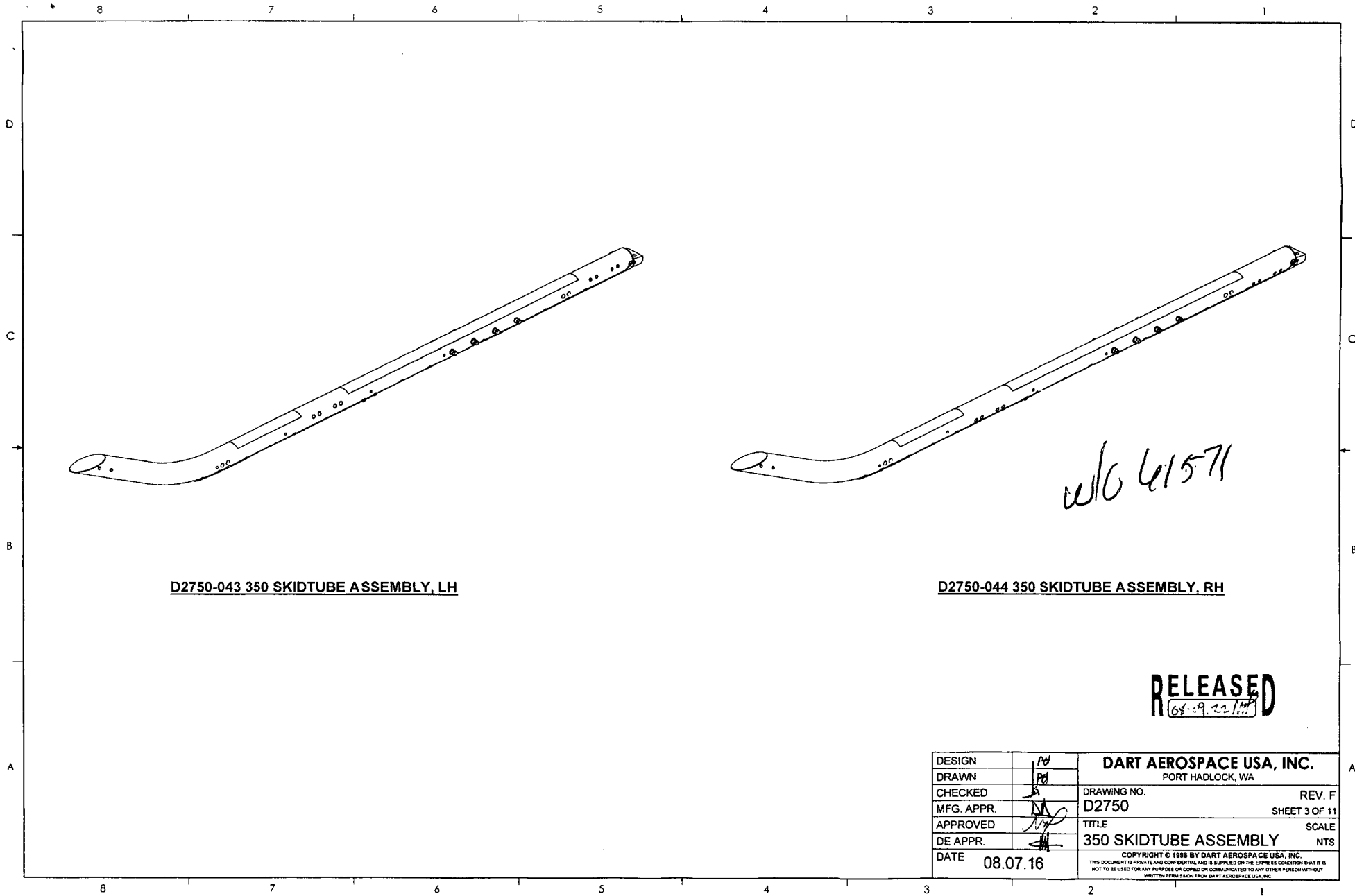
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D2750-043 350 SKIDTUBE ASSEMBLY, LH

D2750-044 350 SKIDTUBE ASSEMBLY, RH

RELEASED
68-9-22/111

DESIGN	PD	DART AEROSPACE USA, INC.	
DRAWN	PD	PORT HADLOCK, WA	
CHECKED	PD	DRAWING NO.	REV. F
MFG. APPR.	PD	D2750	SHEET 3 OF 11
APPROVED	PD	TITLE	SCALE
DE APPR.	PD	350 SKIDTUBE ASSEMBLY	NTS
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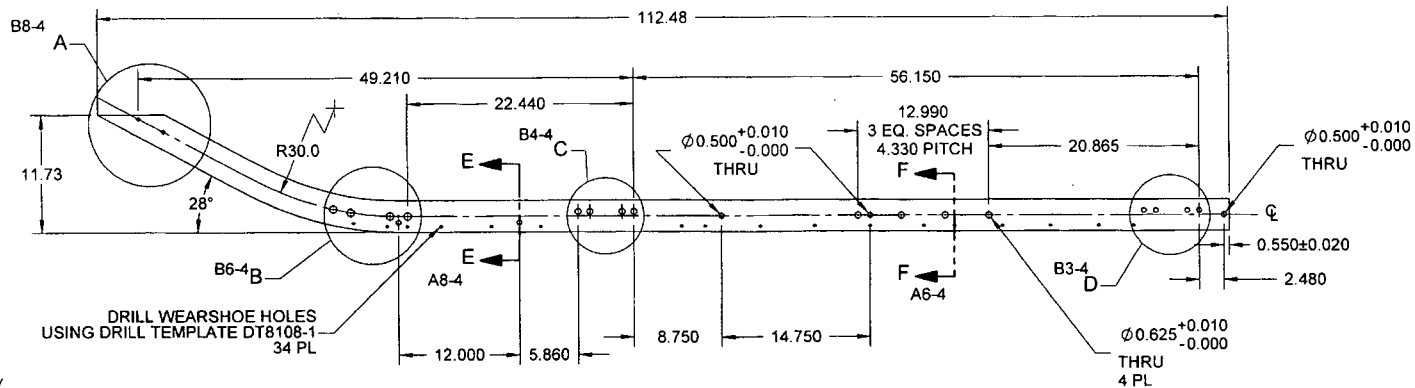
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

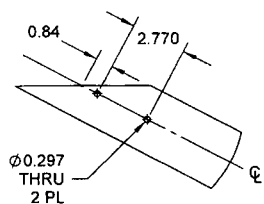
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

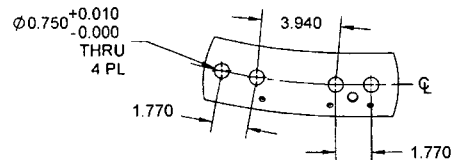
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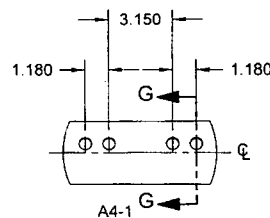
D2750-1 LH SKIDTUBE



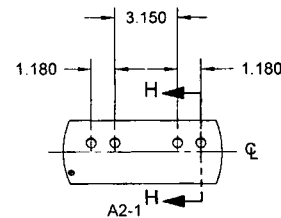
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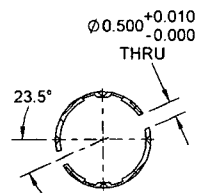
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SCALE 2X



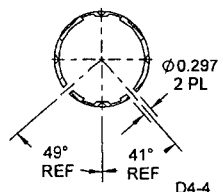
DETAIL C
SCALE 2X



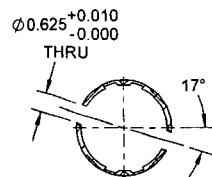
DETAIL D
SCALE 2X



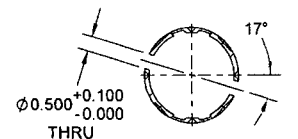
SECTION E-E
SCALE 3X, 2 PL



SECTION F-F
SCALE 3X, 17 PL



SECTION G-G
SCALE 3X, 4 PL



SECTION H-H
SCALE 3X, 4 PL

w/o 61571

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DESIGN	IP	DART AEROSPACE USA, INC.	
DRAWN	IP	PORT HADLOCK, WA	
CHECKED		DRAWING NO. D2750	REV. F
MFG. APPR.			SHEET 4 OF 11
APPROVED		TITLE 350 SKIDTUBE ASSEMBLY	SCALE
DE APPR.			NTS
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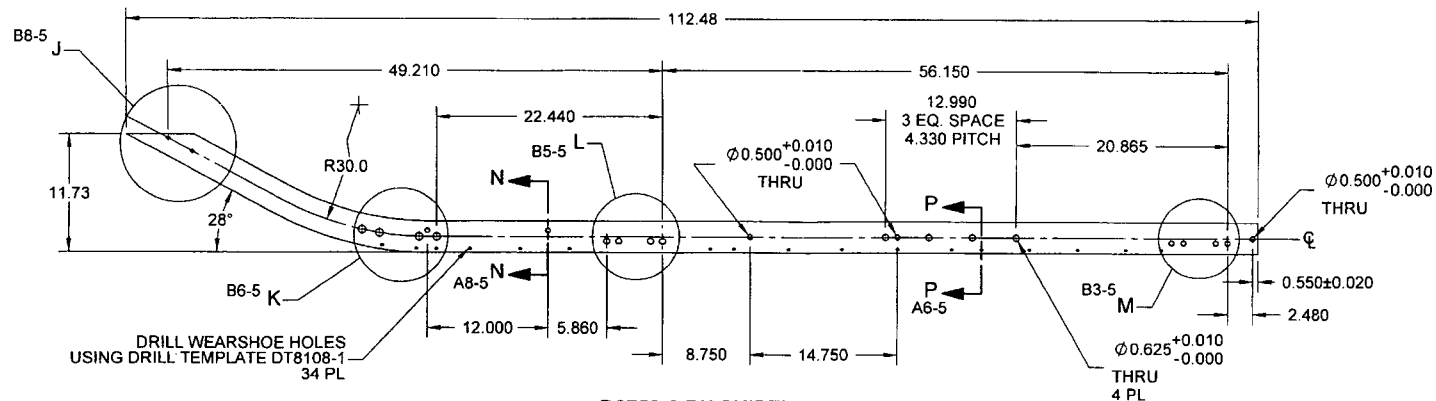
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

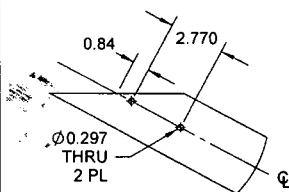
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

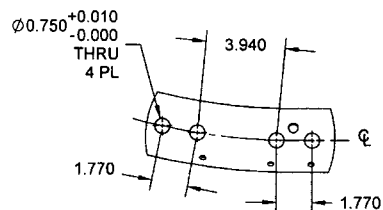
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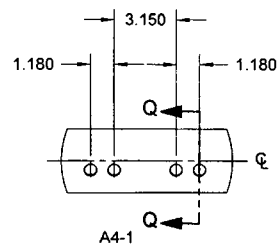
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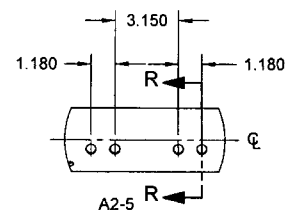
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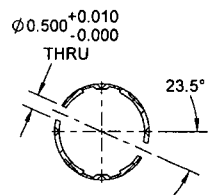
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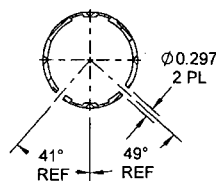
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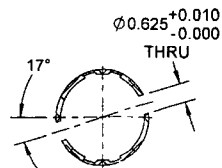
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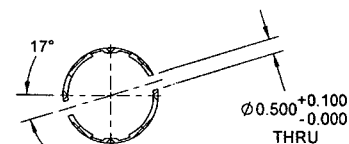
SECTION N-N
SCALE 3X, 2 PL



SECTION P-P
SCALE 3X, 17 PL



SECTION Q-Q
SCALE 3X, 4 PL



SECTION R-R
SCALE 3X, 4 PL

RELEASED

DESIGN	REV	DART AEROSPACE USA, INC.	
DRAWN	REV	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2750	SHEET 5 OF 11
APPROVED		TITLE	SCALE
DE APPR.		350 SKIDTUBE ASSEMBLY	NTS
DATE	08.07.16	COPYRIGHT © 1998 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

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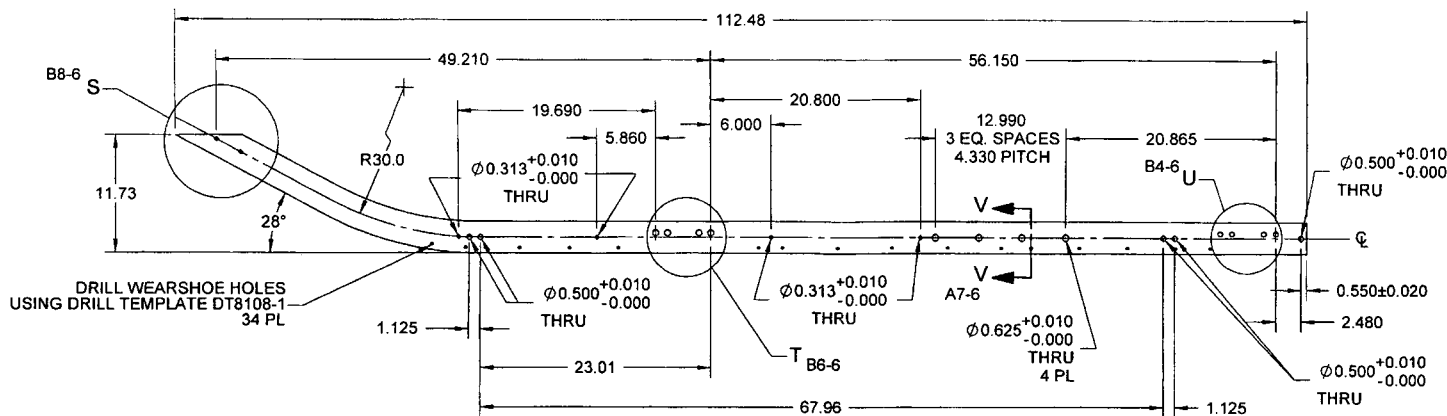
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

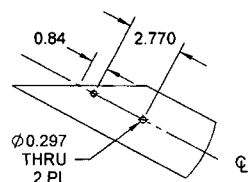
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

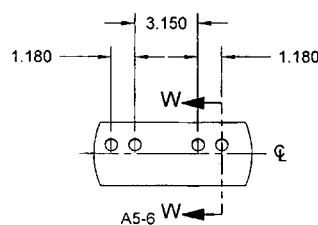
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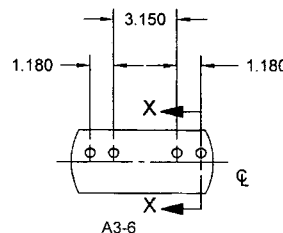
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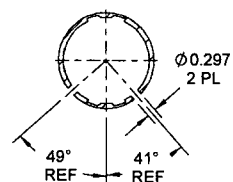
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D8-6
SCALE 2X



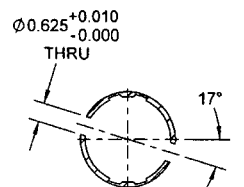
DETAIL T
C5-6
SCALE 2X



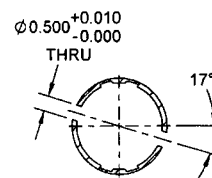
DETAIL U
D3-6
SCALE 2X



SECTION V-V
C4-6
SCALE 3X, 17 PL



SECTION W-W
B6-6
SCALE 3X, 4 PL



SECTION X-X
B4-6
SCALE 3X, 4 PL

w/o 41571

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08 07 16

DESIGN		DART AEROSPACE USA, INC.	
DRAWN		PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV.
MFG. APPR.		D2750	SHEET 6 OF 11
APPROVED		TITLE	SCALE
DE APPR.		350 SKIDTUBE ASSEMBLY	
DATE	08.07.16	NTS	
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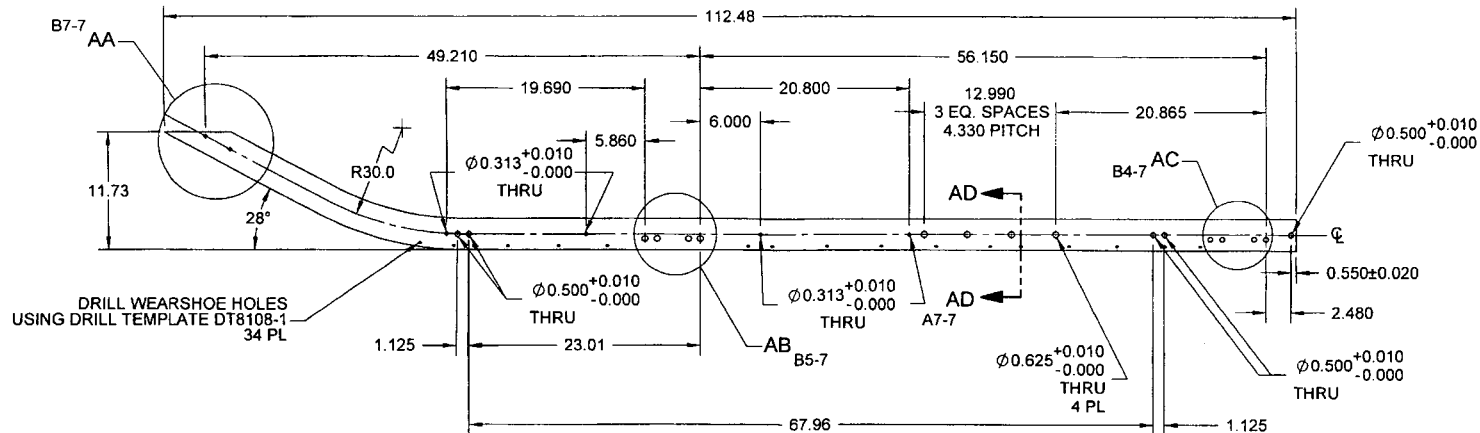
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

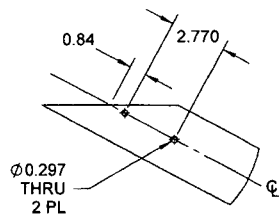
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

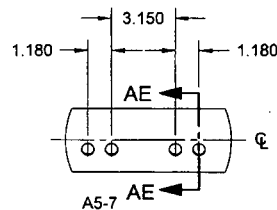
NOTE: Date & initial all entries



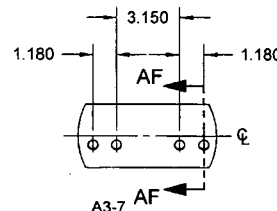
D2750-4 RH SKIDTUBE



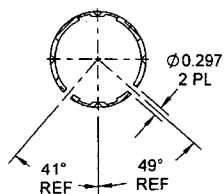
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SCALE 2X



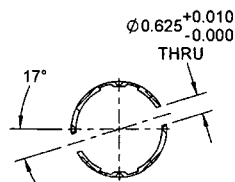
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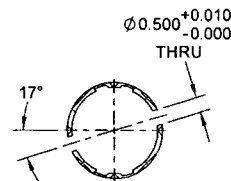
DETAIL AC
SCALE 2X



SECTION AD-AD
SCALE 3X, 17 PL



SECTION AE-AE
SCALE 3X, 4 PL



SECTION AF-AF
SCALE 3X, 4 PL

w/o callout

RELEASED
08-09-2010

DESIGN	AS	DART AEROSPACE USA, INC.	
DRAWN	AS	PORT HADLOCK, WA	
CHECKED	AS	DRAWING NO. D2750	REV. F
MFG. APPR.	AS	SHEET 7 OF 11	
APPROVED	AS	TITLE 350 SKIDTUBE ASSEMBLY	SCALE
DE APPR.	AS	NTS	
DATE	08.07.16	<small>COPYRIGHT © 1998 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

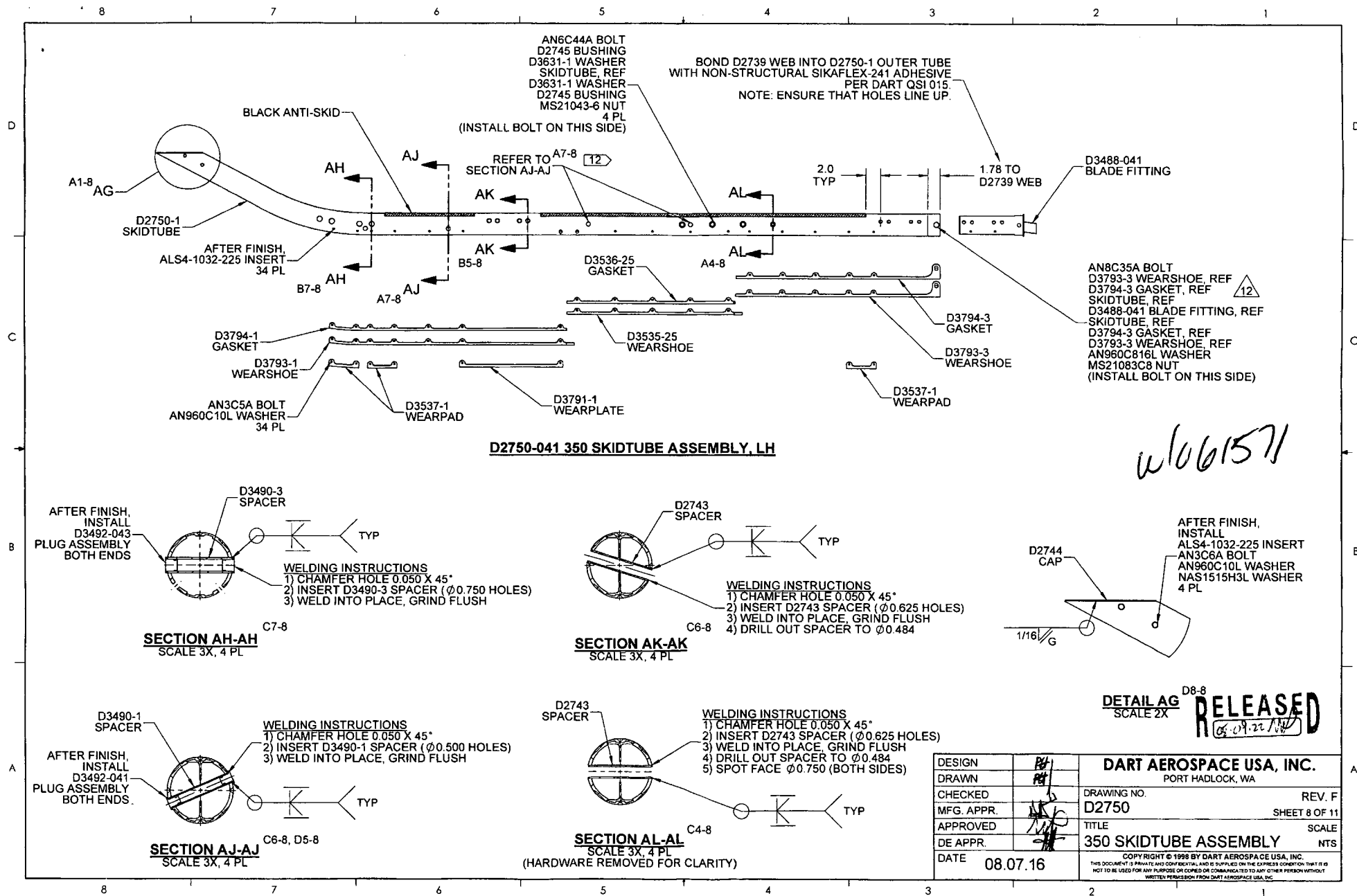
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NOTE: Date & initial all entries



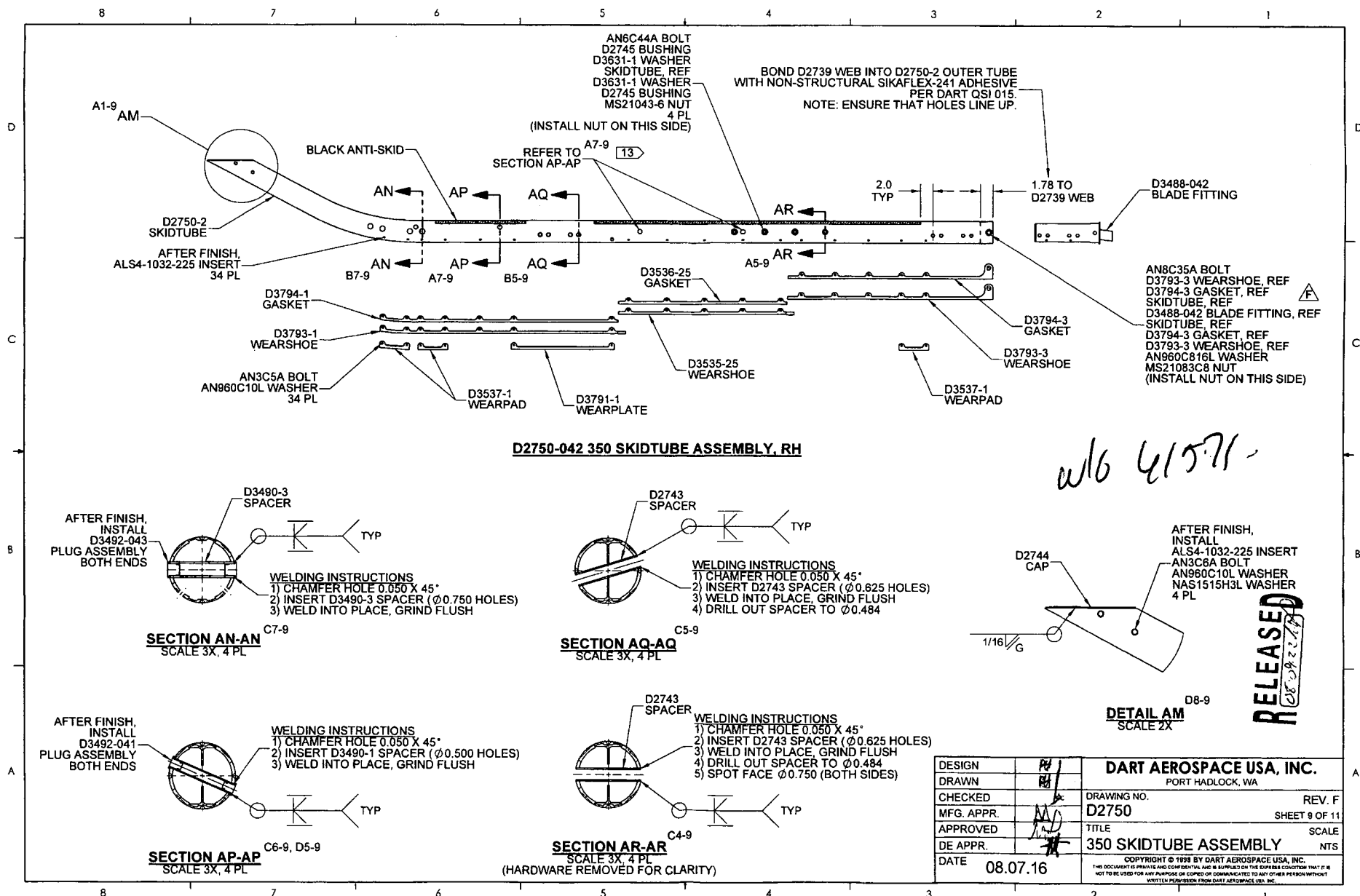
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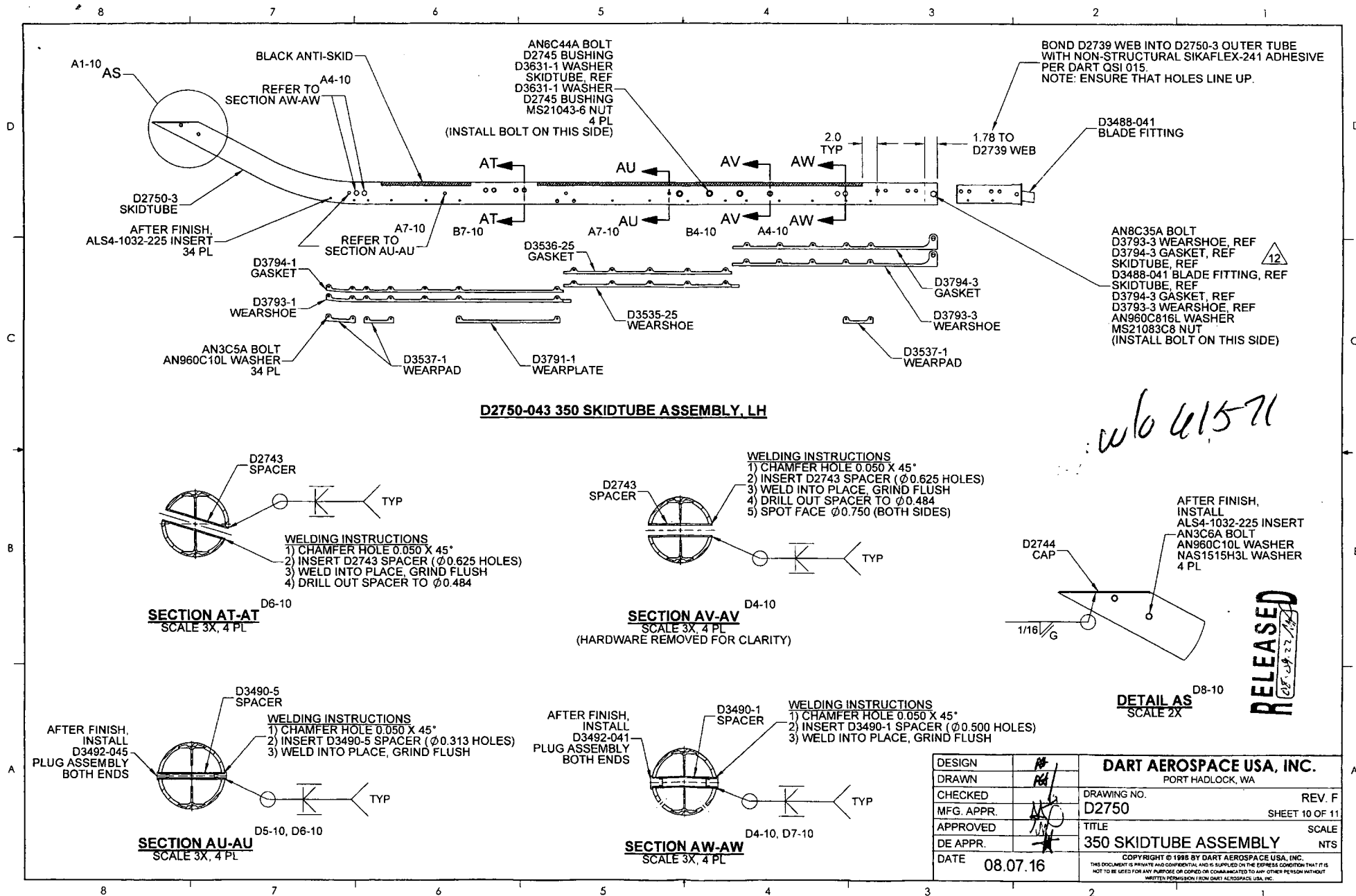
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

NO. 236

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barday Elliott
Job number: 60988
Part number: D350-636-012
Description: 350 skid tube
Welding Process: Tig[☒] Mig[☐]
Base material: Aluminium
Current: AC[☒] DC[☐]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[☐]
Penetration: pass[☒] fail[☐]

UNACCEPTABLE

Cracks: pass[☒] fail[☐]
Undercut: pass[☒] fail[☐]
Pin holes: pass[☒] fail[☐]
Overlap (cold lap): pass[☒] fail[☐]
Porosity (surface): pass[☒] fail[☐]
Coloration: pass[☒] fail[☐]

Qualifier [Signature] Date of Test Coupon 10.08.12

Welder [Signature] Date of Test Coupon 10.08.12

The above named individual is qualified in accordance with AWS D17.1.2001 to weld